GANIN, M. P.

PHASE I BOOK EXPLOITATION SOV/6203

Volodin, Boris Grigor'yevich, Mikhail Pavlovich Ganin, Isay Yakovlevich Diner, Lazar' Borisovich Komarov, Aram Arutyunovich Sveshnikov, Doctor of Technical Sciences, Professor, and Kalman Berkovich Starobin

Rukovodstvo dlya inzhenerov po resheniyu zadach teorii veroyatnostey; sbornik osnovnykh formul, tipovykh resheniy i zadach dlya uprazheniy (Handbook for Engineers on the Solution of Problems in the Theory of Probability; Collection of Basic Formulas, Typical Solutions, and Practice Problems) Leningrad, Sudpromgiz, 1962. 422 p. Errata slip inserted. 14,300 copies printed.

Ed. (Title page): A. A. Sveshnikov; Reviewers: R. I. Ginzburg, Candidate of Technical Sciences, and N. Ya. Cherednichenko, Candidate of Technical Sciences; Ed.: I. A. Shaykevich; Tech. Ed.: A. I. Kontorovich.

PURPOSE: This handbook is intended for engineers, scientific workers, and students at schools of higher education interested in applying formulas of

Card 1/8 2

Handbook for Engineers (Cont.)

the theory of probability to the solution of practical problems.

COVERAGE: The book includes all basic formulas in the theory of probability applicable to the solution of practical problems in automatic control, radio communication, processing and verifying experimental data, and other fields. In each section, work formulas and diagrams are applied to the solution of typical problems. Additional work problems with answers are provided. No personalities are mentioned. There are 33 references: 29 Soviet (including 7 translations from English and German), 3 French, and 1 German.

TABLE OF CONTENTS:



Card 2/2

GANIN, M.P. (Leningrad)

An integral Fredholm equation with a kernel depending on the difference between arguments. Izv. vys. ucheb. zav.; mat. no.2:31-43 '63. (MIRA 16:3)

(Integral equations)

GANIN, N. P.

USSR/Metals - Rolling Spe 50

"Electric Contact Method for Determination of the Speed of Rolled Metal," I. M. Pavlov, N. P. Ganin, I. V. Rudbakh, M. I. Kapustina, Moscow Inst of Steel imeni I. V. Stalin

"Zavod Lab" Vol XVI, No 9, pp 1074-1075.

Describes equipment used for determining speeds of metal in rolling process by method of electric contacts. Speeds of front and rear ends of billet and circumferential speed of rollers are determined directly. Therefore, not only a lead, but also a lag may be determined experimentally. One of essential advantages of method is independence of measuring accuracy from variations in temperature of metal and rollers.

PA 169T51.

Author: G. N. P.

KURIMSYNA, A. D.; GANIN, N.P.; BURKHANOV, S. F.

"Development of The Fundamentals of a Commercial Method of Producing Rolled Bimetallic Strip; Ductile Aluminum Alloy-Duraluminum

Inst Mashino, AN SSSR; Izdatel' AN SSSR, Moscow, 1954, pp 74/90

B-82959, 21 Feb 55

GANIN, N. P., Cand Tech Sci -- (diss) "Investigation of Non-contact, Altitude Deformation During Lengthwise Rolling," Moscow, 1960, 23 pp, 160 copies (Institute of Metallurgy im A. A. Baykov, AS USSR) (KL, 47/60, 102)

PAVLOV, I.M.; GANIN, N.P.; YEGOROV, B.V.; SHELEST, A.Ye.; SYUY TSUO-KHUA

Use of rotary bearings to investigate the rolling process. Izv. vys. ucheb. zav.: chern. met. no.1:84-87 '60.
(MIRA 13:1)

1. Institut metallurgii AN SSSR.
(Rolling (Metalwork))

PAVLOV, I.M.; GANIN, N.P.; YEGOROV, B.V.; SHELEST, A.Ye.; SYUY TSUO-KHUA

Investigating the process of rolling with smooth rolls by the method of rotating bearings. Izv.vys. ucheb. zav.; chern. met. no.3:67-73 '61. (MIRA 14:3)

1. Moskovskiy institut stali i institut metallurgii AN SSSR.
(Rolling(Metalwork))

GANIN, N.P.

Determination of the optimal transfer function of a dynamic system with finite memory. Avtom. upr. i vych. tekh. no.5:55-87 '62. (MIRA 15:9)

(Automatic control) (Electronic calculating machines)

L 13058-65 EWT(d)/EWT(m)/EWA(d)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)
PF-4 ASD(m)-3 JD/HW/MLK
ACCESSION NR: AT4047718 S/0000/64/000/000/0019/0021

AUTHOR: Pavlov, I.M., (Corresponding member AN SSSR), Mekhed, G.M., Gunin, N.P., Suvorov, V.A., Wang, Yu-ming

TITLE: Rolling mill for metals and alloys of low plasticity

SOURCE: AN SSSR. Institut Metallurgii. Plasticheskaya deformatsiya metallov (Plastic deformation of metals). Moscow, Izd-vo Nauka, 1964, 19-21

TOPIC TAGS: rolling mill heating, rolling mill cooling, rolling mill design

ABSTRACT: Electrical, high-strength, heat resistant, acid-proof and other special alloys and metals must have high-quality surfaces. During working under pressure in rolling mills or during thermomechanical working, the machinery employed must therefore be heated to eliminate surface defects; this heating is known as technological tool heating. For rolling mills, the rolls are heated either by the hot metal, by gas or by electricity (resistors and induction coils). For the last two methods, the rolls are heated to 100-350C either in the mill or on a special stand. In factories the rolls can be heated in special gas chambers, by gas burners (either in the mill or on the stand), by electrical resistors or by induction coils. Of these methods the simplest is gas heating. Besides heating, cooling is of great importance. The rolls are cooled either by pouring water, blowing air,

Card 1/2

L 1:058-65
ACCESSION NR: AT4047718

4

steam or water, or by a flow of water through the roll. A special 250 rolling mill was used by the authors for testing. The mill had two gas burners located 40 mm apart. The length of the heated part of the roll was 150 mm, while the diameter was 240 mm. The bearing spacing was 640 mm. The rolls had two grooves at both sides of the working part for water. The burner design insured proper adjustment of heating intensity both before operation and while rolling. Thermocouples were placed on the mill to measure the temperature of the working surfaces of the rolls. "Mechanics A. Ye. Borisov and S. Aynetdinov and Senior laboratory assistant S. L. Vasyukov took part in the work."
Orig. art. has: 2 figures.

ASSOCIATION: Institut metallurgii AN SSSR (Institute of Metallurgy, AN SSSR)

SUBMITTED: 01Jul64 ENCL: 00 SUB CODE: MM, IE

NO REF SOV: 013 OTHER: 000

Card 2/2

GANIN, S.I.

Determining the yield of springs with a spillway-type discharge meter. Geod.i kart. no.12:55-56 D '62. (MIRA 16:2)
(Water, Underground--Measurement)

GANIN, V.P., inzhener.

Use of three-layer panels in the walls of the main building. Elek. sta. 27 no.10:22-25 O '56. (MLRA 9:12)
(Concrete slabs) (Electric power plants)

GANIN, V.P., inzh.

Closed drainage channels constructed with precast reinforced concrete blocks. Bet. i zhel.-bet. no.8:331-333 Ag '57. (MIRA 10:10)
(Pipe, Concrete)

GANIN, V.P., inzh.; GENDIN, V.Ya., inzh.

Using electric heating in building. Stroi. prom. 36 no.9: 13-19 S '58. (MIRA 11:10)

(Electric heating)
(Concrete construction--Cold weather conditions)

GANIN, V.P., inzh.

"Effective methods of the steam curing of concrete" by A.B. Vitkup. Reviewed by V.P. Ganin. Bet. i zhel-bet. no.1:47-48 Ja '59. (MIRA 12:1)

(Concrete--Curing)

GANIN, V. P., Cand Tech Sci, "~~Investigation~~ Study of Hardening of Concrete under Various Conditions of Electric Preheating." Novosibirsk, 1960. (Min of Higher and Sec Spec Ed RSFSR, Novosibirsk Engineering-Construction Inst im V. V. Kuybyshev). (KL, 3-61, 214).

88681

15.3200

S/098/60/000/004/003/006
B019/B077

AUTHORS: Mironov, S. A., Doctor of Technical Sciences, Professor, Ganin, V. P., Engineer

TITLE: Electric heating of fast hardening concretes

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, no. 4, 1960, 26-31

TEXT: Types of concrete which are presently used have a density of over 400 kg/cm$^2$. A concrete with 470 kg/cm$^2$ has been used for building the Kuybyshevskaya ges (Kuybyshev GES). These types of concrete make it possible to shorten the heat treatment, which is very important for manufacturing monolithic concrete structures during wintertime; e.g., while building the dam of the UPGS of the Kuybyshevgidrostroy in winter 1956 only 12% of a monthly output of 2000 m$^3$ has been heated by steam, while everything else was heated electrically. During 1957 till 1959 the authors studied the application of peripheric electric heating to solid concrete structures during the setting time in winter. Climatic conditions prevailing at the construction of the Bratskaya ges (Bratsk GES) and the Krasnoyarskaya ges (Krasnoyarsk GES) have been taken into account.

Card 1/3

Electric heating of fast...

The following three types of concrete have been investigated: Type 150, with a test cone intrusion of 7 - 10 cm; type 300 with a test cone intrusion of 1 - 4 cm and type 450-500 with an inflexibility of 90-100 seconds. Electric heating has been applied to cubic blocks with edge lengths of 15, 10, and 7 cm. They were heated by using metal electrodes, the temperature control being done automatically. The authors conclude the following from their extensive investigations: Electric heating seems to be useful for fast setting concrete. It concerns heating of concrete up to 95-98°C. Heating to 80-98°C should be temporary, which is important for the quality of the concrete and also for the power consumption. A difference between electric and steam heating is found only in the beginning, especially if the concrete is heated for the first time. The thicker the parts, the more profitable is an electric heating. Using fast setting concrete makes it possible to decrease the heating length considerably, e.g., at a temperature of 40°C 20-28 hr are necessary to obtain a strength of 50%. Electric heating also improves the quality without improving the mixture. By employing table salt or calcium chloride (0.5 - 1% of the weight of concrete) the heating length is shortened by a factor of 1.5. There are 4 figures and 2 tables.

Card 2/3

38681

S/098/60/000/004/003/006
B019/B077

Electric heating of fast...

ASSOCIATION: NIIZhB Akademii stroitel'stva i arkhitektury SSSR
(NIIZhB of the Academy of Construction and Architecture USSR)

Card 3/3

GANIN, V.P., inzh.

Selecting rapid methods of electric curing of concrete. Bet.i zhel.-bet. no.12:547-550 D '60. (MIRA 13:11)
(Electric heating) (Concrete--Curing)

MIRONOV, S.A., doktor tekhn.nauk, prof.; GANIN, V.P., inzh.

Electric heating of concrete made with highly active cements.
Gidr. stroi. 30 no.4:26-31 Ap '60. (MIRA 14:4)
(Concrete)

MIRONOV, S.A., doktor tekhn. nauk, prof.; GANIN, V.P., kand. tekhn. nauk

Dependence of the strength of concrete upon the conditions of hardening. Trudy NIIZHB no.32:32-56 '63. (MIRA 17:1)

L 5145-65 EWG(j)/EWT(d)/FSS-2/EWG(r)/EWT(l)/EEC(a)/EWP(m)/T(v)-3/
EWP(w)/EWG(v)/EWA(d)/EWP(v)/T/EWG(a)-2/EWP(k)/EWP(h)/EWG(c)/EWP(l) Pf-5/
Pf-4 SCTB TK/DD/EM
ACCESSION NR: AP5015522 UR/0280/65/000/008/0058/0058
620.176

AUTHOR: Ganin, V. P.; Opukhovskiy, L. Ye.; Fridlender, G. O.; Chachikyan, R. G.

TITLE: A unit for checking and testing automatic catapulting devices. Class 42, No. 170184

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 58

TOPIC TAGS: catapult, test equipment

ABSTRACT: This Author's Certificate introduces: 1. A unit for checking and testing automatic catapulting devices. The mechanism contains a frame with a sleeve which is placed on a rigidly fastened axle turned by a motor. The device is designed for simulating catapulting loads which are close approximations of actual loads. Fastened to the frame are two guides which are joined through a system of three interconnected sleeves to a shaft which is rotated and moved along these guides by a crankshaft connecting rod mechanism. On one end of the shaft is a table for the devices being tested, and on the other end is a sprocket which is connected by a chain drive to another sprocket rigidly fastened to the base of the

Card 1/3

L 51435-65
ACCESSION NR: AP5015522

unit. 2. A modification of this installation which uses a system of four levers for keeping constant tension on the chain drive when the shaft is being moved along the frame in a radial direction. Two of these levers have one end swivel-connected to the table shaft, while the other two have one end connected in the same way to the sleeves of the frame. The other ends of the levers are connected in pairs to intermediate axles with sprockets rigidly connected to them. 3. A modification of this installation which contains a balancing unit made up of a weight located on a guide frame symmetric with the table shaft and connected with the shaft sleeve through two swivel-connected levers and a rocker.

ASSOCIATION: Organizatsiya goskomiteta po aviatsionnoy tekhnike SSSR (Organization of the State Committee for Aviation Technology, SSSR)

SUBMITTED: 26Sep63 ENCL: 01 SUB CODE: IE

NO REF SOV: 000 OTHER: 000

Card 2/3

L 51435-65
ACCESSION NR: AP5015522

ENCLOSURE: 01

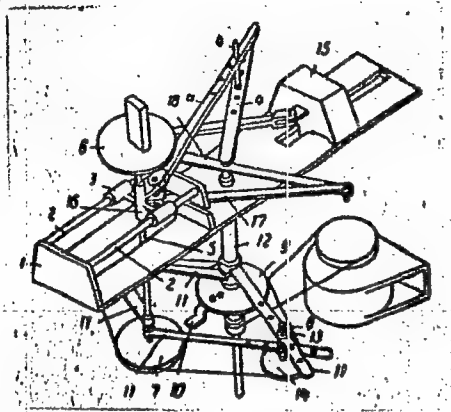


Fig. 1. 1--frame; 2--guides; 3--sleeves; 4--crankshaft connecting rod mechanism; 5--table shaft; 6--table for devices to be tested; 7--sprocket; 8--chain drive; 9--sprocket; 10--base of the unit; 11--levers; 12--sleeve of the frame; 13--intermediate axle; 14--sprockets; 15--weight; 16--shaft sleeve; 17--levers; 18--rocker

Card 3/3

[illegible], M.[illegible] [illegible]

Coupled magnetoelastic waves in polar ferromagnetic structures. Fiz. tver. tela 7 no.5:1521-1528 My '65. (MIRA 18:5)

1. Fiziko-tekhnicheskiy institut AN Ukr SSR, Khar'kov.

GANIN, Ye.A.; FLORINSKIY, B.V.; SHLYKOV, Yu.P.

[Theoretical and experimental study of contact heat transfer] Teoreticheskoe i eksperimental'noe issledovanie kontaktnogo teploobmena. Moskva, Gos.kom-t po ispol'zovaniiu atomnoi energii, 1960. 53 p.
(MIRA 17:2)

SHLYKOV, Yu.P., kand.tekhn.nauk; GANIN, Ye.A., inzh.; DEMKIN, N.B., inzh.

Investigation of contact heat exchange. Teploenergetika 7 no.6: 72-76 Je '60. (MIRA 13:8)
(Heat--Transmission)

SHLYKOV, Yu.P.; GANIN, Ye.A.

Thermal resistance of a contact. Atom. energ. 9 no.6:496-498 D '60. (MIRA 13:12)

(Heat--Transmission) (Surfaces (Technology))

23557
S/096/61/000/007/005/006
E194/E155

11.9100

AUTHORS: Shlykov, Yu.P., Candidate of Technical Sciences, and Ganin, Ye.A., Engineer

TITLE: An experimental investigation of contact heat-exchange

PERIODICAL: Teploenergetika, 1961, No.7, pp. 73-76

TEXT: A previous article in Teploenergetika No.6, 1960 (Ref.1) considered a theoretical method of calculating the thermal resistance of contact between two rough surfaces and recommended certain formulae for calculations. In order to check the method a series of tests were made to determine the thermal resistance of joints as a function of the compressive force, the degree of surface finish, the kind of material, the pressure and nature of the gas used, and the temperature of the contacting surfaces. Cylindrical test pieces were used, 30 mm in diameter and 34 mm long. The test chamber is illustrated diagrammatically in Fig.2. The heat flow was set up by a heater (1) and a cooler (2). The compression between the specimens could be up to 3000 kg and was recorded by a spring dynamometer (4); the test piece is shown at (5). Gas atmosphere or vacuum could be used. The pressure between the

Card 1/ 6

23557

S/096/61/000/007/005/006
E194/E155

An experimental investigation of contact heat-exchange

specimens was raised from 0 to 200 kg/cm$^2$ in steps of 50 kg/cm$^2$. The test results were obtained in the form of temperatures measured over the length of the specimens. The heat drop in the contact zone was determined by extrapolation, and ranged from 10 to 8 °C. The error of the test results was on average 10-12% but at low rates of heat flow it reached 20%. The tests were made on samples of steel 3, stainless steel 1Х18Н9Т (1Kh18N9T), Dural Д-16 (D-16), and copper М-2 (M-2). The test results are plotted in Figs. 3, 4 and 5. In Fig.3 the material is steel 1Kh18N9T with class 5 finish; curve 1 shows the total thermal resistance of contact, curve 2 the thermal resistance of the actual contact (pressure of 5 x $10^{-3}$ mm Hg), curve 3 the thermal resistance of the air layer, and curve 4 the thermal resistance of the contact in helium gas. Fig.4 corresponds to Dural D-16 with class 4 finish, where curve 1 corresponds to the total thermal resistance and curve 2 to the thermal resistance of the actual contact (at a pressure of 5 x $10^{-3}$ mm Hg). Fig.5 corresponds to steel 3 with class 8 surface finish. The total thermal resistance of the

Card 2/ 6

23557

S/096/61/000/007/005/006
E194/E155

An experimental investigation of contact heat-exchange

contact alone is shown. It will be seen that the thermal resistance drops as the pressure is increased, rapidly at first and then more slowly. The dotted lines correspond to theoretical values of thermal resistance obtained by the formula given in the previous article. Agreement is generally good and in the case of Dural the theoretical and experimental curves coincide. As it is important to be able to separate the various components of thermal resistance, tests were made both under vacuum and in a helium atmosphere. The fact that curves 1 and 2 in Fig.4 for Dural are so close indicates that in this case the conductivity of the actual contact plays the main part in heat transmission. The corresponding curves for the steel 1Kh18N9T, which is of lower thermal conductivity (see Fig.3), show that in this case conductivity through the gas is important. Tests were made with helium because of its high thermal conductivity and it is claimed that in this case the main flow of heat through the contact zone passes through the gas. Thus the main conclusion is that in relatively soft materials of good thermal conductivity heat flows

Card 3/ 6

23557
S/096/61/000/007/005/006
E194/E155

An experimental investigation of contact heat-exchange through the contact, and in hard materials of poorer conductivity heat conduction through the gas plays a considerable part. There are 8 figures, 1 table and 4 Soviet references.

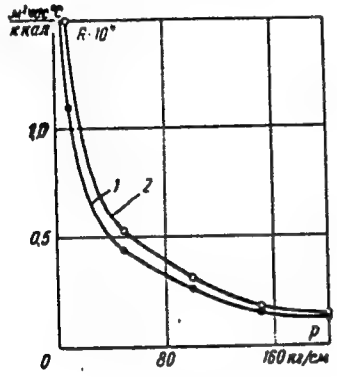



Fig. 4

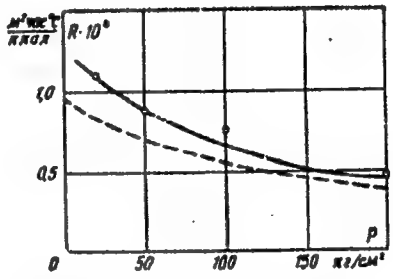



Рис. 5. Материал — Ст. 3, 8-й класс чистоты. Общее термическое сопротивление контакта.

Fig. 5

Card 4/6

SHLYKOV, Yuriy Pavlovich; GANIN, Yevgeniy Alekseyevich. Prinimala uchastiye MIKHAYLOVA, G.M., kand. tekhn. nauk; VOSKRESENSKIY, K.D., red.; FRIDKIN, L.M., tekhn. red.

[Heat exchange by contact; heat transfer between contiguous metal surfaces] Kontaktnyi teploobmen; teploperedacha mezhdu soprikasaiushchimsia metallicheskimi poverkhnostiami. Moskva, Gosenergoizdat, 1963. 143 p. (MIRA 16:5)
(Heat--Transmission)

GORBIS, Zinoviy Rafailovich; GANIN, Ye.A., red.

[Heat transfer of disperse continuous flows] Teplootmen dispersnykh skvoznykh potokov. Moskva, Energiia, 1964. 295 p. (MIRA 17:10)

SHCHERBAKOV, P.M.; KOTEL'NIKOV, B.P.; GANIN, Yu.V.

Determining the individual composition of the industrial fractions of C5 - C9 synthetic fatty acids by means of gas-liquid chromatography. Khim.i tekh.topl.i masel 6 no.9:62-65 S '61. (MIRA 14:10)

1. Nauchno-issledovatel'skiy institut sinteticheskikh zhirozameniteley i moyushchikh sredstv.
(Acids, Fatty) (Gas chromatography)

GANIN, Yu.V.; KOTEL'NIKOV, B.P., inzh.; MARTYNOVA, E.N.

Determination of the individual composition of the intermediate fractions of synthetic fatty acids by gas-liquid chromatography. Masl.-zhir.prom. 27 no.3:29-32 Mr '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy institut sinteticheskikh zhirozameniteley i moyushchikh sredstv.
(Acids, Fatty) (Chromatographic analysis)

SHCHERBAKOV, P.M., inzh.; KOTEL'NIKOV, B.P., inzh.; GANIN, Yu.V., inzh.

Determining the individual composition of fatty acids of the $C_{17} - C_{20}$ fraction by the method of gas-liquid chromatography. Masl.-zhir. prom. 27 no.12:25-27 D '61. (MIRA 14:12)

1. Nauchno-issledovatel'skiy institut sinteticheskikh zhirozameniteley i moyushchikh sredstv.
(Chromatographic analysis)
(Acids, Fatty--Analysis)

CHEPCHUROV, Ya.I.; GANIN, Yu.V., inzh.; LATYSHEV, I.Ye.

Device for determining the acid numbers of the products of paraffin oxidation. Masl.-zhir. prom. 29 no.10:37 O '63. (MIRA 16:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut sinteticheskikh zhirozameniteley.

SOV/47-59-3-21/53

20(5)
22(1)

AUTHOR: Ganin Zh.I.

TITLE: Device For Determining Celestial Coordinates

PERIODICAL: Fizika v shkole, 1959, Nr 3, pp 72-74 (USSR)

ABSTRACT: For determinating celestial coordinates, the author proposes a universal device to be used by students in secondary schools. The device, which is shown in vertical section by a diagram, can be assembled by the students themselves. In the main, the device consists of a base with a vertical axle, a limb and a wooden support turning on the vertical axle. The support is equipped with a horizontal circle (with indicator) arranged parallel to the limb, a compass and an observation tube (with coordinates) connected with the vertical circle. The coordinates of celestial bodies are determined as follows: first the limb is

Card 1/2

Device For Determining Celestial Coordinates

brought into the plane of the mathematical horizon; then the crosspoint of the coordinates within the tube is brought in line with the North Star; the limb has to be turned, until mark $0^{\circ}$ will coincide with the indicator of the horizontal circle. For sighting a star of the selected constellation, the observer turns the tube with the support round the vertical axle in a westward direction (i.e. clockwise). Altitude and azimuth are determined with vertical and horizontal circles, respectively. The author gives additional information. He refers to the "Spravochnik astronoma-lyubitelya" ("Reference Book of the Amateur-Astronomer") by P.G.Kulikovskiy. There is 1 diagram.

ASSOCIATION: Russkaya srednyaya shkola, Idzhevan, Armyanskaya SSR (Russian Secondary School, Idzhevan, Armenian SSR)

GANIN, Zh.I.

Using an astronomical shade in geography classes of the 5th grade. Geog. v shkole 22 no.1:70-72 Ja-F '59. (MIRA 12:4)

1. Idzhevanskaya russkaya shkola ArmSSR.
(Astronomy—Study and teaching)

GANINA, A.Z.

NOVIKOV, A.V.; GANINA, A.Z.; ONEGINA, A.K.; STULOVA, M.V.; AZAROVA, L.A.; DAN'KOVA, M.N.; UPOLCHENTSEVA, T.D.; SHIBAYEV, D.P.; ZHABYKO, Ye.G.; MINKINA, A.G.; OVSYANKINA, Ye.I.; SAVENKOV, F.S., red.; SLEMZIN, A.A., red.; FOMICHEV, P.M., tekhn.red.

[Economy of Kaluga Province; collected statistics] Narodnoe khoziaistvo Kaluzhskoi oblasti; statisticheskii sbornik. Moskva, Gos.stat. izd-vo, 1957. 142 p. (MIRA 11:6)

1. Kaluzhskaya oblast', Statisticheskoye upravlenie. 2. Statisticheskoye upravleniye Kaluzhskoy oblasti (for all except Savenkov, Slemzin, Fomichev) 2. Nachal'nik Statisticheskogo upravleniya Kaluzhskoy oblasti (for Savenkov)
(Kaluga Province--Economic conditions--Statistics)

DAMLNA, K.P.

Effect of artificial cryptorchism on the formation of neoplasms in the testes of rats and dogs. Vop. onk. 11 no.6:79-85 '65. (MIRA 18:8)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta eksperimental'noy i klinicheskoy onkologii (dir. - akademik AN Ukr SSR R.Ye.Kavetskiy).

GANINA, K.P.

1641. Specific changes in the respiratory muscles of the thorax in cases of tuberculosis of the lungs. K. P. Ganina. *Probl. Tuberk.*, 1955, No. 5, 61—64; *Referat. Zh. Biol.*, 1956, Abstract No. 30342. —Thirty-three cases of tuberculosis were studied and tuberculous changes in the muscles were noted in 8 cases. In six of these cases productive tuberculous granulomata with gigantic epithelioid cells and central necrosis were noticed, and in two cases there was histiocyte-macrophage reaction in the muscles. (Résumé) O. L.

GANIN, K.P. (Kiyev-11, ul. Panfilovtsev, d. 18)

Morphology of malignant tumors of the testis. Nov. khir. arkh. 5:39-44 S-O '58. (MIRA 12:1)

1. Laboratoriya patomorfologii (zav. - dots. I.A. Avdeyeva) Instituta eksperimental'noy patologii i terapii raka AMN SSSR.
(TESTICLE--CANCER)

EXCERPTA MEDICA Sec 15 Vol 12/11 Chest Dis. Nov 59

2755. OSTEOPLASTIC PROCESSES IN THE LUNGS IN RHEUMATIC DISEASES (Russian text) - Ganina K. P. - ARKH. PATOL. 1958, 20/10 (73-76)

Osteoplastic pneumopathia is characterized by the wide-spread formation of ramified and coral-like osseous structures in the lungs. Analysis of the pertinent literature revealed that it is as a rule found in cardiovascular diseases. Personal data obtained at autopsy of rheumatic patients showed a generalized intensified development of connective tissue with hyalinosis and ossification in the lungs. Sclerosis of the endocardium, liver, spleen and pancreas were also found. In the lungs there was formation of osseous trabeculae (which had first passed the stage of osteoid tissue) at the side of the most intense sclerosis of the alveolar septi. The changed reactivity of the connective tissue in rheumatic diseases is frequently manifested in its increased plastic function. Changed tissue metabolism may then bring about the formation of osseous structures, notably in the lungs. (V. 15)

Iz kafedrey patologicheskoy anatomii (zav.-prof. V.D.Beletskiy) Ryazanskogo meditsinskogo instituta imeni akademika I.P.Pavlova (dir. prof. L.S.Sutulov.)

4794. **The relationship of Hodgkin's disease and reticulosarcomatosis. Clinical and anatomical data (Russian text)** GANINA K. P. and PEREVODCHIKOVA N.Y. Inst. of Exp. Pathol. and Ther. of Cancer, Moscow *Vopr. Onkol.* 1959, 5/4 (457-462) Illus. 3

In 11 out of 168 patients with Hodgkin's disease, reticulosarcomatosis developed. Clinically this change is characterized by the progressively severe course; all sorts of therapy are of no avail. Morphologically in all the cases studied from their onset, a great predominance of cell proliferation of the reticuloendothelial system was found. At some period of their development these cells showed all signs of malignant growth. Multicentric reticulosarcomatous foci appeared in lymphogranulomatous tissue. In fast spreading forms of lymphogranulomatosis, in the initial stages of the disease, histological examination showed changes that were characteristic both of lymphogranulomatosis and reticulosarcomatosis. The authors think that the morphological changes peculiar for reticulo-cell sarcoma can be explained by the characteristic development of the basic process, i.e. lymphogranulomatosis. The transformation of lymphogranulomatosis into reticulosarcomatosis was observed both in patients receiving all sorts of therapy and in those not treated. Thus, it cannot be due to massive chemotherapy.

LESHCHENKO, F.I. (Kiyev, ul.Vorovskogo, d.14, kv.14); GANINA, K.P., kand. med.nauk

Clinical morphological analysis of polypi of the rectum and sigmoid intestine. Nov. khir. arkh. no.3:43-51 My-Je '60. (MIRA 15:2)

1. Kafedra onkologii Kiyevskogo instituta usovershenstvovaniya vrachey i onkologicheskaya klinika Kiyevskogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo i onkologicheskogo instituta.
(RECTUM--TUMORS) (INTESTINES--TUMORS)

SHEVCHENKO, I.T., prof. (Kiyev, ul. Panfilovtsev, d.18); POKROVSKIY, S.A., prof.; GANINA, K.P., starshiy nauchnyy sotrudnik

Primary malignant bone tumors; analysis of one hudred twenty-one cases. Nov.khir.arkh. no.6:56-66 N-D '59. (MIRA 13:4)

1. Kiyevskiy nauchno-issledovatel'skiy rentgeno-radiologicheskiy i onkologicheskiy institut.
(BONES--CANCER)

GANINA, K.P.; SHEREMET-SHCHERBAK, N.G.

Case of cyst of Highmore's antrum. Zhur. ush., nos. i gorl. bol. 20 no.4:55-56 Jl-Ag '60. (MIRA 14:6)

1. Iz khirurgicheskoy kliniki Kiyevskogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo i onkologicheskogo instituta.
(NOSE, ACCESSORY SINUSES OF--TUMORS)

GANINA, K.P.

Antitumoral properties of hexaetyleneiminophosphoronitrile.
Uch.zap.KRROI 7:177-187'61 (MIRA 16:8)
(CYTOTOXIC DRUGS) (PHOSPHORUS ORGANIC COMPOUNDS)

GANINA, K.P.

Histogenesis of adenomas of the large intestine. Neoplasma 8 no.2: 203-217 '61.

1. Kiyevskiy nauchno-issledovatel'skiy rentgenoradiologicheskiy i onkologicheskiy institut, Kiyev, SSSR.
(COLON neopl) (ADENOMA pathol)

GANINA, K.P., kand.med.nauk

Morphological changes in sexual and endocrine organs in tumors of the testicle. Vrach. delo no.7:92-96 Jl'63. (MIRA 16:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy i klinicheskoy onkologii i Kiyevskiy nauchno-issledovatel'skiy rentgenoradiologicheskiy i onkologicheskiy institut.
(TESTICLE—TUMORS) (ENDOCRINOLOGY)

GANINA, Kaleriya Pavlovna, doktor med. nauk; MEL'NIK, A.N., red.

[Morphology and pathogenesis of testicular tumors] Morfologiia i patogenez opukholei iaichka. Kiev, Zdorov'ia, 1964. 209 p. (MIRA 18:2)

GANINA, K.P., doktor med.nauk; MEL'NIK, A.N., kand.med.nauk

Report on the Symposium "Role of the Histological Methods of Research and Histochemistry in the Diagnosis and Study of the Growth of Tumors." Vop.onk. 11 no.11:115-116 '65.

(MIRA 19:1)

L 5305-66 EWT(m)/EWP(w)/EPF(c)/EWA(d)/EWP(j)/T/EWP(t)/EWP(z)/EWP(b) JD/DJ/RM
ACC NR: AP5025012 SOURCE CODE: UR/0286/65/000/016/0078/0078

AUTHORS: Primatov, A. A.; Bazil'skaya, K. I.; Ganina, K. V.

ORG: none

TITLE: A method for obtaining frictional material. Class 39, No. 173919

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 78

TOPIC TAGS: rubber, resin, asbestos, friction, organosilicon, aluminum oxide

ABSTRACT: This Author Certificate presents a method for obtaining frictional material based on a rubber-resin binder and an asbestos filler. To increase the heat resistance of the material, the original mixture is fortified with an organosilicon liquid (2-3% by weight) and with aluminum oxide (4-5% by weight).

SUB CODE: MT, GC/ SUBM DATE: 15Apr63/ ORIG REF: 000/ OTH REF: 000

Card 1/1 UDC: 678.06:621.597

0901 0546

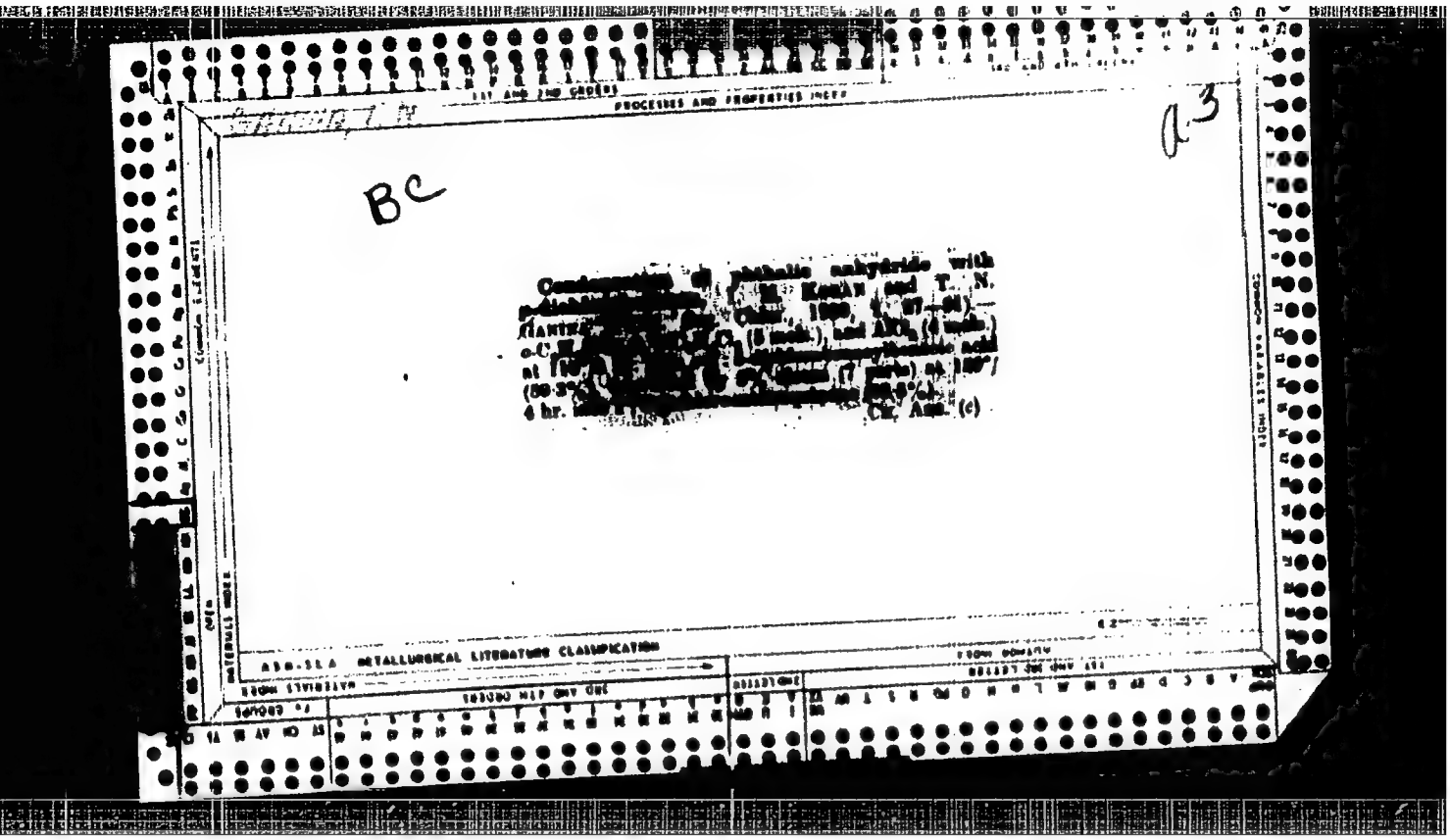
PYATNITSKIY, M.P.; GANINA, S.; GUDIMOVA, N. (Krasnodar)

Quantitative determination of oxygen in air. Khim. v shkole 13 no.1:48-50 Ja-F '58. (MIRA 10:12)
(Quantitative--Study and teaching)
(Air--Analysis)

GANINA, S.A.

More about the station laboratory. Elek i tepl. tiaga 2 no.1:43 Ja '58. (MIRA 11:3)

1. Nachal'nik laboratorii depo Chelkar Orenburgskoy dorogi.
(Chelkar--Diesel locomotives--Testing)



ANDRIANOV, K.A.; ZHDANOV, A.A.; GANINA, T.N.

New polymers--polyorganometallosiloxanes. Soob.o nauch.rab.chl. VKHO no.3:2-4 '55. (MIRA 10:10)

(Siloxanes)

GANINA, T. N.

Polyorganotinsiloxanes and polyorganotitanosiloxanes. K. A. Andrianov, T. N. Ganina, and E. N. Klimova. *Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci.* 1956, 817-22 (English translation).—See *C.A.* 51, 3487i. B. M. R.

GANINA, T.N.

USSR/ Chemistry

Card 1/1 Pub. 40 - 14/25

Authors : Andrianov, K. A., and Ganina, T. N.

Title : Polyorganoalumosiloxanes

Periodical : Izv. AN SSSR. Otd. khim. nauk 1, 74-82, Jan 1956

Abstract : The synthesis of polyalumooxytetra (dimethylphenyldisiloxane) is described. The cleavage of the Si - O - Al bond in this compound as well as in nonaethylalumoxytrisiloxane and kaolin under the effect of aqueous hydrochloric acid solutions was investigated. The cleavage reaction mechanism is explained and it is shown that the bond in question splits much easier in nonaethylalumoxytrisiloxane and kaolin than in polyalumoxytetra (dimethylphenyldisiloxane) because of the development of a second competing condensation reaction which forms stable Si - O - Si bonds limiting the decomposition of the polyalumoxytetra (dimethylphenyldisiloxane). Six references: 5 USSR and 1 USA (1931-1955). Tables; graphs.

Institution : Power Engineering Institute im. V. I. Lenin

Submitted : March 3, 1955

Ganina T. N.

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26886.

Author : Andrianov, K.A.; Ganina, T.N.; Khrustaleva, Ye.N.

Inst : Academy of Sciences of USSR.

Title : Polyorganostannic and Polyorganotitanic Siloxanes.

Orig Pub: Izv. AN SSSR, Otd. khim. n., 1956, No. 7, 798 - 804.

Abstract: Glass-like polyorganostannic silexanes $(-OR_2Si)-_nOSn(C_2H_5)_2-$ (III), where n = 4 to 11, are forming when $R_2SiCl_2$ (I) (R = $CH_3$ or $C_2H_5$) is hydrolysed together with $(C_2H_5)_2SnCl_2$ (II) (50 to 55°, 10%-ual $NH_4OH$, pH 8, 5, 1 hour in toluene). The composition of III depends on the ratio between I and II participating in the reaction. Glass-

Card 1/2

Zanina, T. N.

Chem

Heterofunctional condensation of organoalkoxy- and organochloro silanes. K. A. Andrianov, T. N. Zanina, and N. N. Sokolov. Zhur. Obshchei Khim. 26, 1301-4 (1956).—Heating a chloro silane with an alkoxy silane in the presence of $AlCl_3$ or $FeCl_3$ results in formation of polysiloxanes, with repeating units such as $-SiR_2OSi(OR)R-$, and evolution of RCl. The reaction proceeds at 145-50° and requires several hrs. for completion. Kinetic curves are shown for such reactions involving $MePhSiCl_2$ and $PhSi(OEt)_3$, $Me_2SiCl_2$ and $PhSi(OEt)_3$, $EtPhSi(OEt)_2$ and $PhSiCl_3$. $FeCl_3$ appears to be the most satisfactory catalyst for the reaction. The products retain minor amounts of Cl. If the reaction is carried to a considerable extent with trifunctional components, the products are insol. gels.
G. M. Kosolapoff

3

1 Vsesoyuznyy Elektrotekhnicheskiy Institut.

SOV/79-29-2-53/71

AUTHORS: Andrianov, K. A., Ganina, T. N.

TITLE: On Reactions of the Trimethylacetoxy Silane With Tetrabutoxy Titanium and Titanium Tetrachloride (O reaktsiyakh trimetilatsetoksisilana s tetrabutoksititanom i chetyrekhkhloristym titanom)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, No 2, pp 605-608 (USSR)

ABSTRACT: These reactions have hitherto not been investigated although the heterofunctional condensations of the substituted ethers and alkyl silane halides take place easily with alkyl and acrylacetoxy silanes and lead to various mono and polymeric organosilic compounds (Ref 1). It was of interest to employ this method for the synthesis of mixed organotitanium silicon compounds. In the condensation of trimethylacetoxy silane with tetrabutoxy titanium the authors expected the formation of tetra (trimethylsiloxy) titanium according to the scheme

$$4(CH_3)_3SiOCOCH_3+Ti(OC_4H_9)_4 \longrightarrow Ti\left[OSi(CH_3)_3\right]_4+4CH_3COOC_4H_9$$

The experiments, however, showed that the reaction is of secondary importance. The condensation of tetrabutoxy titanium with trimethylacetoxy silane yielded no tetra(trimethylsiloxy)titanium and served as proof of it. The final products were solid white, nonmelting

Card 1/3

On Reactions of the Trimethylacetoxy Silane With Tetrabutoxy Titanium and Titanium Tetrachloride

products soluble in alcohol but decomposing at high temperatures. The analyses of these products and their molecular weights indicate formula (I) and (II), i.e. octaacetoxy cyclotetratitanoxane and hepteacetoxy trimethylsiloxy cyclotetratitanoxane. The structure of the compounds (I) was also confirmed by its investigation in the infrared spectrum. Compounds (I) and (II) do not melt until 340°, however, they start decomposing at this temperature; they are soluble in hot alcohol and insoluble in gasoline, benzene, toluene and other solvents. Thus, the condensation of trimethylacetoxy silane with tetrabutoxy titanium did not lead to tetra(trimethylsiloxy)titanium. It is accompanied by the replacement of the butoxy groups by the acetoxy groups at titanium, wherein the above mentioned polymers of cyclic structure are formed. The condensation of trimethylacetoxy silane with $TiCl_4$ leads to the replacement of the halogens at the titanium atoms by the acetoxy groups. In this reaction, which takes place difficultly, compounds with Ti-O-Si bindings are formed. Tetra(trimethylsiloxy)titanium could not be separated.- There are 2 Soviet references.

Card 2/3

On Reactions of the Trimethylacetoxy Silane With Tetrabutoxy Titanium and Titanium Tetrachloride

SOV/79-29-2-53/71

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut imeni V. I. Lenina (All-Union Electrotechnical Institute imeni V. I. Lenin)

SUBMITTED: December 26, 1957

Card 3/3

S/191/60/000/010/014/017
B004/B060

53700

AUTHORS: Astakhin, V. V., Ganina, T. N., Gribanova, O. I., Sokolov, N. N., Khrustaleva, Ye. N.

TITLE: Methods of Producing n-Tetrabutoxy Titanium

PERIODICAL: Plasticheskiye massy, 1960, No. 10, pp. 62-63

TEXT: The authors wanted to work out a technical procedure of producing n-tetrabutoxy titanium which is needed for electric insulating varnish. After a survey of data contained in literature a report is made of the authors' own experiments. The initial substances were pure $TiCl_4$ (TU 2553-51 (TU 2553-51)) and n-butyl alcohol, boiling point 114-116°C. $TiCl_4$ was dropped in under exclusion of air and under water cooling into the alcohol. Neutralization was performed with anhydrous ammonia. The yield amounted to 84.0%, even when the temperature amounted to 23-27°C in the reaction vessel. The authors conclude that a more intense cooling to lower temperatures is technically not necessary. The raw product contained low-molecular butoxy titanoxane, some chlorine, and traces of iron.

Card 1/2

Methods of Producing n-Tetrabutoxy Titanium

87438
S/191/60/000/010/014/017
B004/B060

A purification, however, proved to be superfluous, since this product was equivalent to the pure product as a varnish addition. Finally, experiments made in a 60-l enamel vessel are described. The tubes of the apparatus were made of lead, the cocks of faolite. The yields amounted to 57.5-72.5%. These low results are explained by an insufficient filling of the large vessel. There are 1 figure, 3 tables, and 18 references: 6 Soviet, 2 US, 1 Belgian, 6 British, 1 Dutch, 1 French, and 3 German.

Card 2/2

82682

S/079/60/030/008/007/008
B004/B064

55.3700

AUTHORS: Andrianov, K. A., Ganina, T. N., Sokolov, N. N., Khrustaleva, Ye. N.

TITLE: Synthesis of Low-molecular Polyorganoethoxy Siloxanes With Regular Structure

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 8, pp. 2777 - 2781

TEXT: The authors aimed at synthesizing polyorgano siloxanes, whose chain consists of Si and O atoms, while the different organic groups bound to the Si atom alternate in a certain order: $R_2SiCl_2 + 2R'_2Si(OR")_2 \rightarrow R"O\overset{R'}{\underset{R'}{Si}}O\overset{R}{\underset{R'}{Si}}O\overset{R'}{\underset{R'}{Si}}OR" + 2R"Cl$. Corresponding to this reaction equation the condensation was carried out of methyl-phenyl dichlorosilane with dimethyl-diethoxysilane, methyl-phenyl diethoxysilane, ethyl-phenyl diethoxysilane, phenyl-triethoxysilane as well as the condensation of methyl-phenyl diethoxysilane with methyl-phenyl chloroethoxysilane and

Card 1/2

82682

Synthesis of Low-molecular Polyorganoethoxy Siloxanes With Regular Structure

S/079/60/030/008/007/008
B004/B064

dichlorophenyl dichloroethoxysilane. $FeCl_3$ served as catalyst. The ethyl chloride forming in this connection was collected in a vessel cooled with liquid nitrogen. Isolating the reaction products formed met with considerable difficulties so that the yields were between 13 and 47%. 1,5-dimethyl-1,5-diphenyl-3-ethoxy-3-dichlorophenyl-diethoxytrisiloxane and 1,5-diethoxy-3-methyl-1,3,5-triphenyl-diethoxytrisiloxane were obtained. Besides, 1,1,3-trimethyl-3-phenyl diethoxydisiloxane, 1-methyl-3-ethyl-1,3-diphenyl diethoxydisiloxane and hexamethyl-3,5-diphenyl-1,7-diethoxy tetrasiloxane formed by the re-arrangement of the functional groups. The assumed course of reaction could be experimentally proven. A table lists the compounds and their physical data. There are 1 table and 5 Soviet references.

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut (All-Union Electrotechnical Institute)

SUBMITTED: July 27, 1959

Card 2/2

37432
S/190/62/004/005/007/026
B110/B144

15.8170

AUTHORS: Andrianov, K. A., Ganina, T. N., Sokolov, N. N.

TITLE: Synthesis of polyferro organosiloxanes and polyferroalumo organosiloxanes

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 5, 1962, 678-682

TEXT: Low-molecular polyferrophenyl siloxanes and polyalumoferrophenyl siloxanes were obtained by an exchange reaction of phenyl sodium oxydioxy silane with iron ($FeCl_3$) or aluminum salts ($AlCl_3$) (5 hrs, 100°C).

Polyferrophenyl siloxanes with the molecular weight 4500:

$$C_6H_5Si(OH)_2ONa + FeCl_3 \text{ [или } FeNH_4(SO_4)_2\text{]} \rightarrow$$

$$\rightarrow \left\{ - \left[ \begin{matrix} C_6H_5 \\ | \\ Si-O \\ | \\ OH \end{matrix} \right]_x - \left[ \begin{matrix} C_6H_5 \\ | \\ Si-O \\ | \\ O_{0,5} \end{matrix} \right]_y - \begin{matrix} | \\ Fe-O- \\ | \\ O_{0,5} \end{matrix} \right\}_n$$

Card 1/4

Synthesis of polyferro organosiloxanes ...

are nonfusible powders soluble in benzene, toluene, xylene, chloro benzene, acetone, amyl acetate, dichloro ethane, and carbon tetrachloride, partly soluble in ethanol, insoluble in benzine and decahydronaphthalene. Nonfusible polyferrophenyl siloxanes soluble in organic substances with x and y = 2 are obtained by decomposing phenyl sodium oxy-dioxy silane with 20% ammonium ferric alum in an aqueous-alkaline medium. The decomposition of phenyl sodium oxy-dioxy silane with $AlCl_3$ and $FeCl_3$ in toluene follows the reaction

$$C_6H_5Si(OH)_2ONa + FeCl_3 + AlCl_3 \rightarrow$$

$$\rightarrow \left\{ \left[ \begin{array}{c} C_6H_5 \\ | \\ Si-O \\ | \\ O_{0,5} \end{array} \right]_x - \begin{array}{c} Al-O- \\ | \\ O_{0,5} \end{array} - \left[ \begin{array}{c} C_6H_5 \\ | \\ Si-O \\ | \\ O_{0,5} \end{array} \right]_y - \begin{array}{c} Fe-O \\ | \\ O_{0,5} \end{array} \right\}_n$$

The resulting polyferroalumophenyl siloxanes (Si : Fe = 12.0; Si : Al = 12.0; Al : Fe = 1.0, and x and y = 6) are nonfusible; their solubility equals that of polyferrophenyl siloxanes. They remain soluble

Card 2/4

in toluene and their molecular weight increases from 3770 to 7430 when kept at 200°C for 2 hrs. The weight of polyferrophenyl siloxanes decreases by 6.7, 14.93, 53.21% after 5-hr heating at 200, 320°C, and red heat, respectively. When kept for 5.5-10 hrs at 200°C, their hydroxyl group content decreases from 4.5-5.8% to 3.2-4.1% by condensation, with unchanged solubility. Structuration of polymers thus only takes place at high temperatures which make them insoluble in organic substances. The content of OH groups in polyalumophenyl siloxanes decreases from 5.53 to 2.7% after 10 hrs at 150°C, whereas their solubility in organic substances remains unchanged. Structuration takes place at 200-500°C. Five solid, powdery fractions were separated from polyferrophenyl siloxane (Si : Fe = 10) by fractional precipitation: fraction I: 6% by weight (17.11% Fe, Si : Fe = 1.4); fraction II: 22% by weight (molecular weight: 5770, 6% Fe, Si : Fe = 5.6); fractions III, IV, and V: 50% by weight (molecular weight: 3660, 4.2-4.4% Fe, Si : Fe = 9). There are 2 tables.

Synthesis of polyferro organosiloxanes ... S/190/62/004/005/007/026 B110/B144

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut im. V. I. Lenina (All-Union Electrotechnical Institute imeni V. I. Lenin)

SUBMITTED: March 24, 1961

Card 4/4

AUTHORS: Korenman, I. M., Ganina, V. G., Lebedeva, N. P. 78-3-5-36/39

TITLE: Solubility of Thallium Chromate (Rastvorimost' khromata talliya)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol 3, Nr 5, pp 1265-1267 (USSR)

ABSTRACT: The solubility of thallium chromate in acqueous solutions of some binary and trinary electrolytes in ammoniacal buffer solution as well as in trilon-B-solution was determined.
The solubility of thallium chromate at 20°C in water is 0,042 ± 0,001 g/l. The solubility product amounts to $2{,}0.10^{-12}$. The solubility of thallium chromate in 0,1 - - 1 n - solutions of sulfates and nitrates of potassium and ammonium was determined, and it thence results that the solubility of thallium chromate increases according to the increasing concentration of the electrolyte. The solubility of thallium chromate is, in solutions of ammonium salts, higher than in solutions of potassium salts. The solubility of thallium chromate is especially high in acqueous solutions of trilon-B, in which case a complex

Card 1/2

Solubility of Thallium Chromate 78-3-5-36/39

compound of thallium with trilon-B is formed.
There are 4 tables and 5 references, 1 of which is Soviet.

ASSOCIATION: Gor'kovskiy gosudarstvennyy universitet im. N. I. Lobachevskogo (Gor'kiy State University imeni N. I. Lobachevskiy)

SUBMITTED: July 8, 1957

AVAILABLE: Library of Congress

1. Thallium chromate--Solubility

Card 2/2

5(2,3)

AUTHORS: Korenman, I. M., Canina, V. G. SOV/153-58-6-6/22

TITLE: Colored Reactions on Salts of Mercurous Oxide (Tsvetnyye reaktsii na soli zakisi rtuti)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 6, pp 34-38 (USSR)

ABSTRACT: The authors recall the best-known organic reagents to the salts mentioned in the title (Refs 1-5). With regard to the mercurous oxide cation, however, they are, in the majority of cases, neither sufficiently sensitive nor specific. Consequently, the search for new reagents is of practical interest. Many organic compounds (dyes) yield colored soluble reaction products with the salts mentioned in the title, whereas some of them form white or colored precipitations. In order to find new adsorption indicators for mercurimetry, the authors carried out a more detailed investigation of 2 azo-dyes in aqueous solutions (N. I. Zharkova and L. V. Zuykova participating in the work): 1.1-oxy-2-nitrobenzene-4-sulfo-acid-6-azo-2'-naphthalene-1'-oxy-5'-sulfo-acid (in the following referred to as I), and diamond-red-PV (II). From the experiments it was obvious that the reaction products most characteristic

Card 1/3

with respect to coloring are formed in a practically neutral medium. The interactions of dyes I and II with cations of various analytical groups were investigated. I does not react with $Tl^{+}$; a raspberry-colored soluble product is formed by $Hg^{2+}$, $Zn^{2+}$, $Ni^{2+}$, $Co^{2+}$, $Pb^{2+}$, $Mn^{2+}$, $Be^{2+}$, $Al^{3+}$, $Bi^{3+}$, $Th^{4+}$, $Ti^{4+}$; the reaction product of I with $UO_2^{2+}$ is orange-yellow, that with $F^{2+}$ and $F^{3+}$ yellow. In addition to reacting with mercurous oxide, dye II also reacts with $Hg^{2+}$ to form a non-characteristic brown precipitation; with $UO_2^{2+}$ a brown soluble product is obtained, and with $Fe^{2+}$ and $Fe^{3+}$ yellow solutions are formed. Thus none of the cations here investigated yielded a result analogous to the reaction products of I and II with mercurous oxide. Table 1 shows the limiting conditions found to exist in this connection. From this it will be seen that most of the cations do not prevent the discovery of the mercurous oxide salts. The reaction products of the mercurous oxide salts with a chloride or bromide in the presence of I and II, form, with low concentrations of the two halogenides, a light blue, and in the case of a surplus, a pink precipita-

tion. This fact leads to the assumption that the two dyes might be used as adsorption indicators in mercurimetry. This application was attempted with sodium and potassium halides: the results are presented in tables 2-5. They clearly reveal the applicability of this method. There are 5 tables and 6 references, 1 of which is Soviet.

ASSOCIATION: Kafedra analiticheskoy khimii; Gor'kovskiy gosudarstvennyy universitet imeni N. I. Lobachevskogo (Chair of Analytical Chemistry; Gor'kiy State University imeni N. I. Lobachevskiy)

SUBMITTED: January 27, 1958

5(2,3)

AUTHORS: Korenman, I. M., Kurina, N. V. Ganina, V. G.

SOV/153-2-1-3/25

TITLE: Color Reactions of Zirconium (Tsvetnyye reaktsii na tsirkoniy)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 1, pp 15-19 (USSR)

ABSTRACT: The groups —N=N— and —$AsO_3H_2$ are to be considered functional-analytical in the case of zirconium (Refs 1,2). The authors investigated organic compounds as reagents on zirconium which contain this and several other groups. These are: acid blue, acid brown, gallein-phthalein as well as some azo dyes (derivatives of chromotropic acid). Gallein-phthalein turned out to be a very sensitive and specific reagent. In order to explain the problem whether zirconium can be detected in the presence of foreign cations, the authors determined the admissible limit ratios of zirconium to several other cations (Table 1). It results therefrom that most cations practically do not exercise any inhibitory effect in this case, with the exception of trivalent iron the concentration of which must not exceed that of zirconium by five times. In a strongly acid

Card 1/2

medium all investigated azo dyes yield reaction products with zirconium, some of them even in a weakly acid medium. The best results were obtained from 4-sulphobenzene-2-azo chromotropic acid in weakly and strongly acid media. Table 2 shows the limit ratios of the last-mentioned acid in the HCl medium. Thus, zirconium can be detected in a mixture of several cations if its concentration is not lower than 1mg/ml (blue coloring in HCl solution). At lower concentrations a violet coloring is produced which is similar to that of cerium, lanthanum, and calcium. Due to its pink coloring cobalt exerts an inhibitory effect. The reactions under discussion were utilized for a colorimetric determination of zirconium (Tables 3-7). Figures 1 and 2 show calibration diagrams for the reaction with galleinphthalein and 4-sulphobenzene-2-azo chromotropic acid. There are 2 figures, 7 tables, and 4 Soviet references.

ASSOCIATION: Gor'kovskiy gosudarstvennyy universitet im. N. I. Lobachevskogo; Kafedra analiticheskoy khimii (Gor'kiy State University imeni N. I. Lobachevskiy; Chair of Analytical Chemistry)

SUBMITTED: January 23, 1958

S/081/62/000/023/023/120
B158/B180

AUTHORS: Korenman, I. M., Canina, V. G., Kurina, N. V.

TITLE: Examination of some hydroxy anthraquinones used as reagents for rare earth elements

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 176, abstract 23D102 (Tr. po khimii i khim. tekhnol. (Gor'kiy), no. 4, 1961, 761-766)

TEXT: It is shown that rare earth elements (REE) in a hexamethylene tetramineborate buffer medium of pH 7 react with both quinalizarin and Na alizarin sulfonate to form colored products of 1:1 composition with maximum light absorption at 560-590 and 520-540 mμ respectively. The spectral characteristics of the reaction products are similar for the different REE. For both reagents the mol. absorption coefficient is of the order of 13,000-17,000. The sensitivity of the reaction increases with the atomic number of the REE. The colored products of the REE reaction were used for photometric determination of Lu, Gd and Er in solutions of their salts. These reagents cannot be used for separate determination of the REE where occur together. [Abstracter's note: Complete translation.]

Card 1/1

15-8530 also 2209

26866
S/080/61/034/004/007/012
A057/A129

AUTHORS: Popova, Z. V.; Yanovskiy, D. M.; Zil'berman, Ye. N.; Rybakova, N.A. Ganina, V. I.

TITLE: Effect of some phenols on thermal and photo-decomposition of polyvinylchloride

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 4, 1961, 874 - 881

TEXT: The correlation between the structure of the compound and the effect on the rate of thermal and photo-decomposition of polyvinylchloride (PVC) for some derivatives of 2-oxysubstituted and non-substituted (in the ortho position benzophenones and acetophenones, alkyl- and alkylene resorcines, as well as some analogous compounds was investigated. It was found that the stabilizing effect is not only due to the absorption ability of ultraviolet light ("filter effect"), but also to the ability to inhibit chain reactions in thermal and photodecomposition of PVC. The "filter effect is better expressed in compounds containing molecules in which an interaction occurs between carbonyl and hydroxyl groups, resulting in formation of a hydrogen bond. The ability for inhibition of decomposition of PVC by chain reactions is prevalent in compounds containing an

Card 1/4

Effect of some phenols on ....

easily mobile hydrogen atom in the hydroxyl group. In prior papers (Ref. 4: Vysokomol. soyed. 2,2,210, 1960; and Ref. 5: Doklady Mosk. Mezhdunarod. Simposiuma po makromol. khim. (Reports of the International Symposium on Macromol. Chem. Moscow), III, 372, 1960) the present authors demonstrated that ultraviolet light-absorbing stabilizers (among these benzophenone derivatives) also diminish thermal decomposition of PVC. The ultraviolet spectra of the substances investigated in the present work were taken with an СФ-4 (SF-4) spectrophotometer. Depending on the absorption ability concentrations from 0.005 to 0.074 g/l of stabilizers were used. PVC samples of the "ПФ-spetsial'naya" (PF-special) resin type with 0.00025 mole stabilizer per 10 g PVC were investigated. The inhibiting effect on thermal decomposition of PVC was estimated comparing the dehydrogenation rate by heating stabilized and non-stabilized PVC (Ref. 16: ZhPKh, 33, 1, 186, 1960). The photostabilizing effect was determined by the decrease in thermal stability and increase in HCl evolution rate of a stabilized and non-stabilized sample after irradiation by a ПРК-2 (PRK-2) ultra-violet bulb (Ref. 16). If $v_1$ and $v_2$ are the mean integral HCl evolution rates until and after irradiation (175°C, 180 minutes in air stream) of the non-stabilized PVC sample, and $v_3$ and $v_4$ of the stabilized sample, then the ratio $v_3/v_1$ or $v_4/v_2$, respectively, characterize the effect of the stabilizer prior to and after irradiation. On the other hand the ratios $v_2/v_1$ and

Card 2/4

Effect of some phenols on .....

$v_4/v_3$ characterize the increase in the dehydrochlorination rate for the non-stabilized and stabilized PVC. The stabilizer has a "filter effect" if $v_2/v_1 > v_4/v_3$, while $v_4/v_3 > v_2/v_1$ indicates that the stabilizer is a photosensitizer. The obtained results demonstrate on a table that the strongest inhibitors for the thermal decomposition of PVC are 2, 4, 6- trioxybenzophenone (III), 1,10-di-(2,4-dioxyphenyl)-decane (XIX) and ethylresoroine (XVIII). Less effect is obtained with 2,4-dioxybenzophenone (I), 2-oxy-4 methoxybenzophenone (II), 2,2'-dioxy-4,4'-dimethoxybenzophenone (VI), acetophenone (XVI). No inhibiting effect was obtained with 2,4-dioxy-4'-chlorobenzophenone (IV), 2,4-dioxy-3'-nitrobenzophenone (V), 2,4-dioxyacetophenone (VII), 2,2', 4,4'-tetraoxyderivatives of adipophenone (IX), or pimelophenone (X), of azelaophenone (XI), of sebacophenone (XII), 4-phenylbenzophenone (XV), and benzophenone (XIV). Apparently the inhibiting effect is in relation to the mobility of the hydrogen atom in the hydroxyl group. Thus the compounds XIV, XV, XVI and XVII do not have hydroxyl groups and also no inhibiting effect on thermal decomposition of PVC. In the compounds I, II, IV, V, VII, IX - XII and $\alpha,\alpha'$-di(2,4-dioxybenzoyl)-p-xylylene (XIII) cyclization is possible by interaction of the hydroxyl group (being in ortho position) with the carbonyl group. Cyclization diminishes the mobility of the hydrogen atom in the hydroxyl group, thus effecting a decrease in the inhibition effect of these compounds.

Card 3/4

Effect of some phenols on .....

Molecules of XVIII and XIX contain a mobile hydrogen atom which does not react with the carbonyl group. This explains the higher inhibiting effect of these compounds in relation to VII and XII. The high effect of III is caused by the two hydroxyl groups being in ortho position to the carbonyl group thus having a weakend cycle. The greatest "filter effect" is shown by diphenyl (XVII), 2,2', 4,4'-tetraoxy-derivatives of adipophenone (IX), of pimelophenone (X), (XI), (XII) and also (V). No effect was shown by (III), (XVI) and (XVIII). Stabilizers with a strong "filter effect" have an intensive light absorption in the range of 2,200 - 3,300 Å. There are 2 tables and 17 references: 8 Soviet-bloc and 9 non-Soviet-bloc.

SUBMITTED: July 9, 1960

SUKHORUKOV, B.I.; FINKEL'SHTEYN, A.I.; ZIL'BERMAN, Ye.N.;
KULIKOV, A.Ye.; GANINA, V.I. (Dzerzhinsk)

Spectroscopic study of the molecular structure of amide hydrochlorides. Zhur. fiz. khim. 35 no.7:1600-1605 Jl '61. (MIRA 14:7)

(Amides—Spectra)

ZIL'BERMAN, Ye.N.; LAZARIS, A.Ya.; PETUKHOV, G.G.; STRIZHAKOV, O.D.; GANINA, V.I.

Interaction of nitriles with heavy water and deuterium chloride. Dokl. AN SSSR 142 no.1:96-98 Ja '62. (MIRA 14:12)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudarstvennom universitete im. N.I. Lobachevskogo. Predstavleno akademikom B.A. Arbuzovym.

(Nitriles) (Deuterium compounds)

S/190/62/004/011/006/014
B106/B101

AUTHORS: Minsker, K. S., Ganina, V. I.

TITLE: The role of surface holes in heterogeneous catalytic polymerization. III. Polymerization of acrylonitrile in the presence of colored alkali halide salts formed in the Wurtz-Fittig reaction

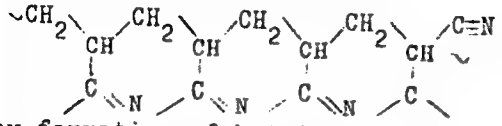
PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 11, 1962, 1665 - 1671

TEXT: The heterogeneous polymerization of acrylonitrile was studied in n-heptane as medium in the presence of the blue to dark-green alkali halide crystals precipitating in the Wurtz-Fittig synthesis. Low-molecular yellowish-orange polymers (intrinsic viscosity in dimethyl formamide 0.06 - 0.16) were obtained. Colorless polymers are obtained only at reaction temperatures of -50 to -70°C or when ether is used as medium (in both cases the reducing power of the catalyst decreases sharply). It was detected by IR spectra that the colored polyacryl nitrile specimens had different N-containing groups (nitrile, imine, and amide groups; conjugated

Card 1/3

C=N bonds). When the specimens are pretreated with 10% hydrochloric acid, mainly imine groups are hydrolyzed to keto groups. In samples pretreated with 10% sodium hydroxide, bands of imine as well as nitrile groups were completely absent. The nitrogen present (~5%) is probably contained in groups that resist to hydrolysis (e.g. naphthyridine groups). From these results the mechanism of polymerization was deduced. It is initiated by the holes of the catalyst; an electron passes from an F center of the catalyst either to the free π orbital of the C=C bond or to the first free molecular orbital of the nitrile group of the acrylonitrile. In the first case, a radical with negative sign $\dot{C}H_2-\underset{CN}{\dot{C}H}/\square^-$ is formed, the chain being able to grow in both directions. In the second case a free radical of the type $CH_2=CH-\dot{C}=N/\square^-$ ($/\square^-$ meaning an F center) is formed. Owing to the extremely low ionization energy (< 2.7 ev) of the F centers of NaCl, NaI, and KI, ordinary polymerization of the acrylonitrile as well as partial ring formation in the isotactic part of the polymer can occur, resulting in structures of the type

The role of surface holes...



. Moreover, cross linking can set in by formation of ketoimine groups, whereby the very mobile α-hydrogen atom is bonded to the nitrogen atom of a neighboring nitrile group. The two latter reactions lead to the formation of chromophore groups. There are 3 figures and 1 table. The most important English-language references are: I. R. Cartner, Mod. Plast., 30, 118, 1955; R. Houtz, Text Res. J., 20, 786, 1950; N. Grassie, J. N. Hay, I. C. Mc Neill, J. Polymer Sci., 31, 205, 1958.

SUBMITTED: June 19, 1961

Card 3/3

GANINA, V.I.; FINKEL'SHTEYN, A.I.

Infrared spectra of hydrochloric amidine halides. Opt. i spektr. 13 no.4:576-578 O '62. (MIRA 16:3)
(Amidines—Spectra)

ACCESSION NR: AP4045435 S/0190/64/006/009/1684/1687

AUTHOR: Berlin, A.A., Ganina, V.I., Kargin, V.A., Kronman, A.G., Yanovskiy, D.M.

TITLE: Formation of salt groups by the reaction of poly[vinylchloride] with nitrile and methylvinylpyridine rubbers

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 9, 1964, 1684-1687

TOPIC TAGS: poly[vinylchloride], nitrile rubber, methylvinylpyridine rubber, plasticization, polymer infrared spectrum polymer, impact strength, pyridine salt, volume resistivity, grafted copolymer

ABSTRACT: The proposed mechanism of formation of grafted copolymers, their infrared spectra, volume resistivity and some physico-mechanical properties of the products of coplasticization of poly[vinylchloride] (PVC) with nitrile and methylvinylpyridine synthetic rubbers were investigated on 0.08 mm thick films made from a 1:1 mixture of PVC and rubber. Models for the grafted copolymers of PVC with methylvinylpyridine rubbers (MVP) were low-molecular pyridine salts. The absorption spectra of PVC, MVP and their coplasticization products showed that the absorption bands of PVC and rubber appear in the spectrum of the coplasticization product either unchanged or with a slight displacement.

Card 1/3

ACCESSION NR: AP4045435

Some bands characteristic of PVC coalesce with the corresponding MVP bands. There, the width and intensity of the separate bands change. The appearance of new bands for the reaction product at 1628 and 1470 $cm^{-1}$ can be explained by the absorption of the pyridine ion, for which two characteristic bands lie in the regions of 1630-1640 and 1485-1490 $cm^{-1}$. The low-molecular pyridine salt shows a very sharp peak at 1636 $cm^{-1}$ anc a wide intensive peak with a maximum in the region of 1470-1480 $cm^{-1}$. It has been confirmed by the spectra that during the coplasticization of PVC and MVP, by the interaction of their functional groups, grafted copolymers having the structure of high-molecular pyridine salts are produced. The volume resistivity data for PVC-MVP and PVC-nitrile grafted copolymers as well as for the coplasticization of PVC with butadiene and butadiene-styrene (SKS-30) rubbers, are tabulated. The volume resistivity decreases considerably if the amount of rubber, containing functional groups which interact with the chlorine atoms of PVC, is increased. This increase in electrical conductivity for PVC compositions with rubber may be due to the formation of an ionic structure in the grafted copolymers or to the accumulation of hydrogen chloride in the system, as a result of the dehydrochlorination of PVC during plasticization. Analysis of aqueous-acetone extracts showed the absence of chlorine and hydrogen atoms in the composition. The

Card 2/3

ACCESSION NR: AP4045435

coplasticization products also have a high impact strength. Compositions of PVC with nonpolar rubbers containing no functional groups able to react with PVC are characterized by a low impact strength and low relative elongation, due to the absence of a chemical bond between PVC and the rubbers, as well as to their incompatibility. Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: none

SUBMITTED: 16Nov63 ENCL: 00 SUB CODE: OC, MT

NO REF SOV: 004 OTHER: 004

Card 3/3

GANINA, V.I.; IVCHER, T.S.; POMERANTSEVA, E.G.; PEREPLETCHIKOVA, Ye.M.; ZIL'BERMAN, Ye.N.

Polarographic and spectrophotometric determination of $\alpha$, $\beta$-unsaturated ketones in cyclohexanone. Zav. lab. 30 no.5:541-542 '64. (MIRA 17:5)

[illegible], Ye. P. - "The vitamin $B_2$ (riboflavin) content in local food products," Kazan', 1955. Kazakh State Medical Inst, Chair of General Hygiene. (Dissertation for degree of Candidate of Medical Sciences.)

SO: Knizhnaya letopis', No 48. 26 November 1955. Moscow.